



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/912,227

07/24/2001

Seppo Hamalainen

944-003.079

4331

4955

7590

10/28/2004

WARE FRESSOLA VAN DER SLUYS &  
ADOLPHSON, LLP  
BRADFORD GREEN BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

EXAMINER

NGUYEN, BRIAN D

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

CA

# Office Action Summary

Application No.

09/912,227

Applicant(s)

HAMALAINEN, SEPPO

Examiner

Brian D Nguyen

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed 6/7/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-13 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 4-6, 14-16, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 18 and 19 are objected to because of the following informalities:

Claim 18, “means for providing” in line 4 and “means for deciding” in line 5 seems to refer back to “means for providing” in line 11 and “means for deciding” in line 13 of claim 11. If this is true, it is suggested to change “means for providing” in line 4 and “means for deciding” in line 5 to ---**the** means for providing--- and ---**the** means for deciding---.

Claim 19, “means for providing” in line 4 and “means for deciding” in line 5 seems to refer back to “means for providing” in line 11 and “means for deciding” in line 13 of claim 11. If this is true, it is suggested to change “means for providing” in line 4 and “means for deciding” in line 5 to ---**the** means for providing--- and ---**the** means for deciding---.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-3 and 12-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The added limitation: “based on” in line 3 of claims 2-3 and 12-13 was not described in the specification. For example, page 3, lines 28-30 states that “the second

communication device is either an SIR target value, a changed SIR target value, an ACK/NACK signal, or a signal derived from a series of consecutive ACK/NACK signals.”

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 7-8, 10-13, 17-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Varma et al (6,643,322).

Regarding claim 1, Varma discloses method of deciding whether to perform link adaptation for communication from a first communication device to a second communication device (see figure 1), the link adaptation resulting in a change in coding or modulation or both (see col. 1, lines 18-22), the second communication device examining a signal received from the first communication device and providing a first indication of the quality of the signal as received by the second communication device, the method comprising the steps of: recording the first indication of the quality of the signal (see NACK and ACK in col. 2, lines 4-18 and SINR in col. 4, lines 17-23) as received by the second communication device ; providing a second indication of the quality of the signal (see target value(s) (threshold(s)) in figure 4); and deciding to perform link adaptation based on the first and second indication of the quality of the signal.

Art Unit: 2661

(see figure 4 where coding or modulation or both (parameters) are changed based on the first and second indication of the quality of the signal) .

Regarding claim 2, Varma discloses the first indication of the quality of the signal as received by the second communication device is either an SIR estimate (see SINR in col. 4, lines 17-23), or an ACK/NACK signal (see col. 2, lines 4-18), or an FER or BLER or corresponding statistic collected over a predetermined time period.

Regarding claim 3, Varma discloses the second indication of the quality of the signal as received by the second communication device is either an SIR target value (see threshold(s) in figure 4 and 50, a changed SIR target value, an ACK/NACK signal (see col.. 2, lines 4-18), or a signal derived from a series of consecutive ACK/NACK signals.

Regarding claim 7, Varma discloses the first communication device is selected from the group consisting of a mobile station and a base station and the second communication device is the other device in the group consisting of the mobile station and the base station (see figure 1 and abstract).

Regarding claim 8, Varma discloses either the first communication device or the second communication device perform one or more of the steps of recording the first indication of the quality of the signal, providing a second indication of the quality of the signal, and deciding to perform link adaptation (see figure 1 and abstract).

Regarding claim 10, Varma discloses the signal for which the indication of the quality of the signal as received by the second communication device is used as a basis for a link adaptation decision is different from, but associated with, the signal for which the link adaptation

Art Unit: 2661

decision is made (NACK/ACK or SINR is used as a basis for a link adaptation decision is different from, but associated with, the signal for which the link adaptation decision is made).

Regarding claims 11-13, 17-18, and 20, claims 11-13, 17-18, and 20 are apparatus claims that have substantially all the limitations of the respective method claims 1-3, 7-8, and 10. Therefore, they are subject to the same rejection.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Varma et al (6,643,322) in view of Sebastian Knutsson et al (6,085,108).

Regarding claims 9 and 19, Varma does not specifically disclose an RNC performs one of more of the steps. However, to perform one or more of the steps in the mobile, base, or RNC is a matter of design choice. Knutsson discloses a RNC perform one or more of the steps (see col. 3, lines 4-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the RNC performs one or more of the steps as taught by Knutsson in the system of Varma in order to meet specific needs such as to minimize the size of a mobile unit.

***Allowable Subject Matter***

Art Unit: 2661

8. Claims 4-6, 14-16, and 21-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1-3, 7-13, and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

  
BRIAN NGUYEN  
PRIMARY EXAMINER

10/21/04